User Manual
For IPRS

PTT Client –Nokia S60

Symbian 9.1

Symbian 9.2

Symbian 9.3

Version 2.1

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1. Introduction

This document describes the IPRS (IP Radio Service) Push-to-Talk (PTT) solution and its implementation on your handset. By integrating instant communications and PTT technology, can easily locate and communicate with other users.

Note: The screens shown in this document reflect the user interface as customized for Nokia 6600, however their appearance may vary according to the specific handset in use.

1.1. Audience and Scope of Manual

This document is intended for users and providers of the IPRS PTT solution.

1.2. Acronyms

PTT	Push-to-Talk
IPRS	IP Radio Service
Stand- by	PTT Application running in the background

2. Overview

IPRS (IP Radio Service) technology enables both instant messaging and push-to-talk (PTT) interaction with unlimited international and roaming capabilities over 2.5-3G networks.

The IPRS Client enables you to send and receive instant messages, view the presence status of other subscribers, manage your Contact List, conduct one-to-one or one-to-many instant voice sessions.

2.1. Presence

You can determine your availability as it is displayed to others and view the availability of your contacts.

2.2. Address Book

You can add and manage your contact list, which contains the users and groups with whom you wish to interact.

2.3. Push-to-Talk

You can talk to a group of up to 50 users through the IPRS service. The IPRS system creates the look and feel of a two-way radio system. In order to talk you simply press the designated PTT button and your voice is transmitted immediately to -other subscribers who are in a session with you.

3. Getting Started

3.1. Installing the IPRS Client

Symbian installable file PushToTalk.SISX or PushToTalk.SIS need to be installed on device Using Nokia PC Suit or Via Bluetooth.

Nokia PC Suit should be installed on PC and then device need to connect with PC via USB Cable or Bluetooth with PC suit. After connecting device with PC just open installable file, it will start installing application to device for complete installation all steps need to follow on device as per installer's instruction.

In absence of Pc Suit installable can be sent to device via Bluetooth. Device will receive Symbian build into its inbox. After opening that build file in device, it will start installing application and for complete installation all steps need to follow as per installer's instruction.

These images are showing installation steps.

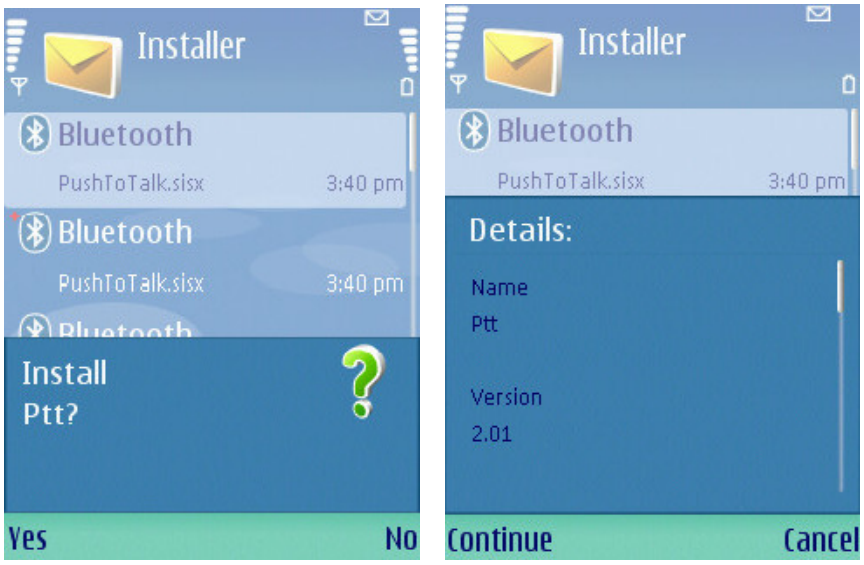


Figure 1,2: PTT/IPRS Client Installation

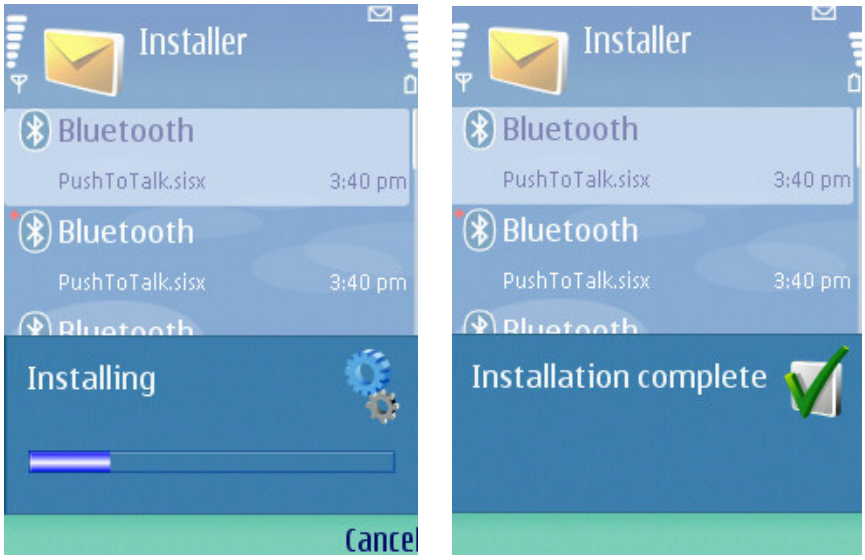


Figure 3,4: PTT/IPRS Client Installation

3.2. Accessing the IPRS Client

The PTT application is installed in the 'Installation.' folder on the handset. This is found by pushing the menu key and scrolling to the ''Installation.' folder. In the ''Installation.' folder scroll to the 'Ptt' application and press the scroll key. You will be presented with a privacy statement (see figure 2). Press the OK button to close the privacy statement. The privacy statement can be disabled from the settings menu.

Note: Some devices will enable you to assign the left soft-key on your opening screen to launch the IPRS application.

Figure 5: Select PTT/IPRS Client

3.3. IPRS Client Functionality

1. **Scroll key**: The navigational arrows that are located around the perimeter of the scroll key enable you to scroll within the menus and screens of the IPRS Client.
2. **End key**: The end key is used to switch the phone to stand-by.
3. **Call key**: The call key can be used as the PTT (Push-to-Talk) button.
4. **Left selection key**: The left selection key activates the application menu. This button may sometimes also be referred to as the Menu or Ok button.
5. **Right selection key**: The right selection key is used to select items in the Ptt application.
6. **Clear ('c') button**: Leave PTT session.
7. **Menu button**: Continuance pressing on it display running background applications (short one will display device Menu button)

Figure 6: Handset Functionality

3.4 IPRS Login Procedure

One application startup Login Screen asks for Credential like Username, Password and Login Options. Username and Password will be assigned at time of Registration.

Login Options are as mentioned below:

Forget Me: It will not store anything for next login.
Store User Name: It will store Username which will be auto filled on next login.
Store Password: It will store Username and Password which will be auto filled on Next login
Automatic: It will automatically start login process on application startup.
Run at startup: It will automatically start application and login on phone startup.

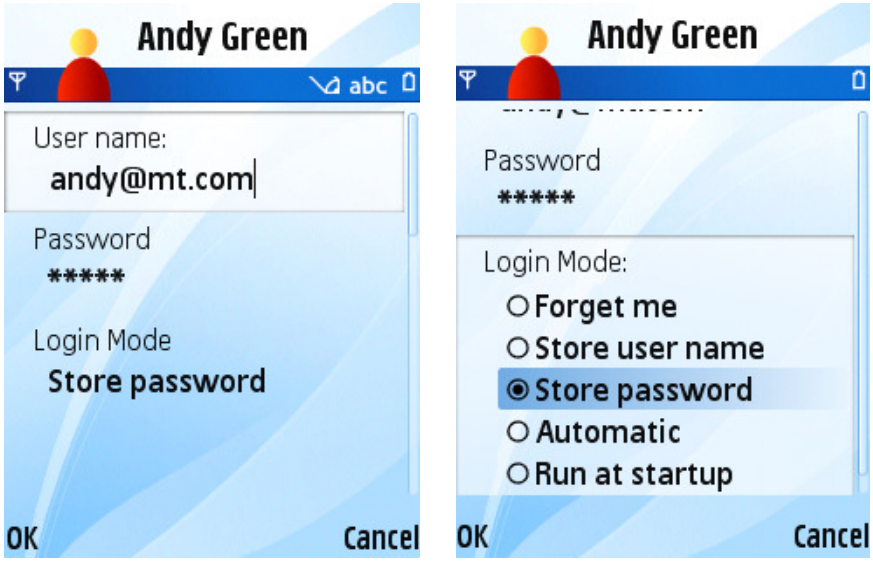


Figure 7,8: PTT/IPRS Login Procedure

3.5. IPRS Options Menu

Pressing the **Menu** button while the IPRS client is running displays the IPRS Options menu.

The functionality available from the IPRS Options menu varies according to the currently displayed screen and may include the following:

- **Status**: Enables you to set your presence status as it is viewed by others. Refer to 4. Setting Your Presence Status.
- **End session**: Enables you to end/exit current sessions.
- **Contacts**: displays the Contact List screen enabling you to add new contacts, remove contacts, add to groups and edit contacts names.
  Refer to 5. Managing Your Contact List.
- **Calls**: Displays a list of Incoming, Missed, Outgoing calls and alerts.
- **GPS Status**: Displays Client's GPS Location and Network details.
- **SOS:** It will send SOS Request to server and displays current status of SOS request.
- **Set as PTT default:** It will set selected PTT contact or group as default PTT so user Can start call with default contact or group by just pressing PTT button.
- **About**: Displays client version information.
- **Settings**: Configures the server settings, user configuration and volume levels. Settings should only be changed by the system administrator
- **Exit**: shuts down the PTT application

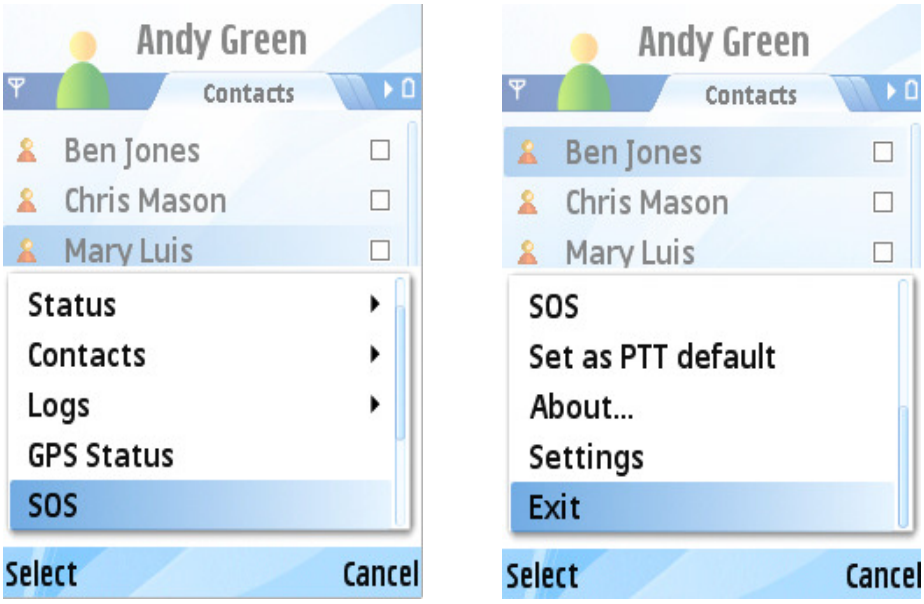


Figure 9,10: Menu Options

4. Setting Your Presence Status

You can determine your availability as it is displayed to others.

Your IPRS presence status can be changed easily and frequently by selecting the desired status from the My Presence menu.

1. With the IPRS Client running, press the **Menu** button. The Options menu is displayed.
2. Select **Status** and press the **Select** button. The My Status screen is displayed.

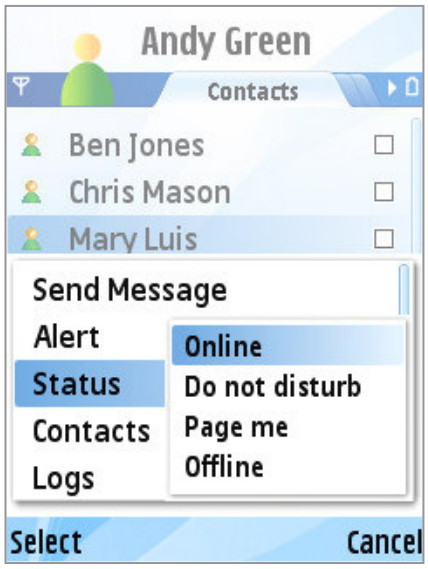


Figure 11: My Status Screen

3. Scroll down and select the desired availability.
4. Press the **Select** button. Your IPRS presence status is changed.

The status icon indicates the availability of each contact as follows:

Online - User is online

Offline - User is offline

Do not disturb - User cannot be invited to any new sessions, but he can hear audio and can initiate PTT calls.

Page me - Any incoming call should be authorized by user

In Session – Indicates the user is in a session. Please note that this presence can't be determined/selected by the user, this icon only indicates about the users who are inside a specific group.

5. Managing Your Contact List

You're Contacts and Groups Tabs contains your contacts personal groups and server groups (i.e. groups that are configured by an IPRS administrator) Together called the Contact list.

The contact list is divided to two tabs, one containing members of the Contacts List and the second Groups list (both personal and server sides created). You can switch between the tabs using navigation arrows. To view the members of the particular groups navigate to the name of that group is the Groups Tab using vertical navigation arrows and then press the right horizontal arrow.

You can maintain your own personal list of contacts in your IPRS Contact List. You can then initiate private and multi-party sessions to any combination of contacts in your Contact List.

You may add, edit or delete entries to your contact list.

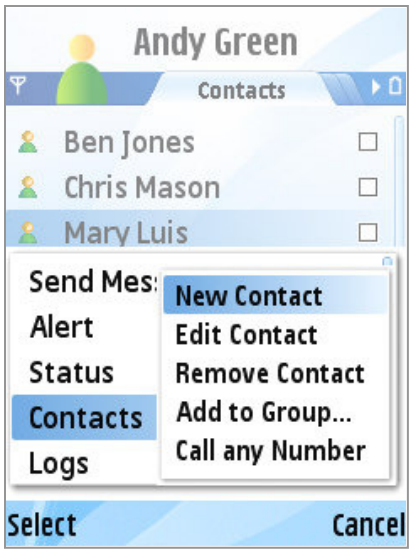


Figure 12: Managing the Contact List

5.1. Adding Contacts

Adding personal contacts to your Contact List enables conduct PTT sessions with additional IPRS users. This action can be fulfilled by two ways:

(Headings) By Phone number:

1. From the Contacts screen, press the **Menu** button. The Options Menu is displayed.
2. Select Contacts > New Contact. The Enter ID/NAME screen is displayed.

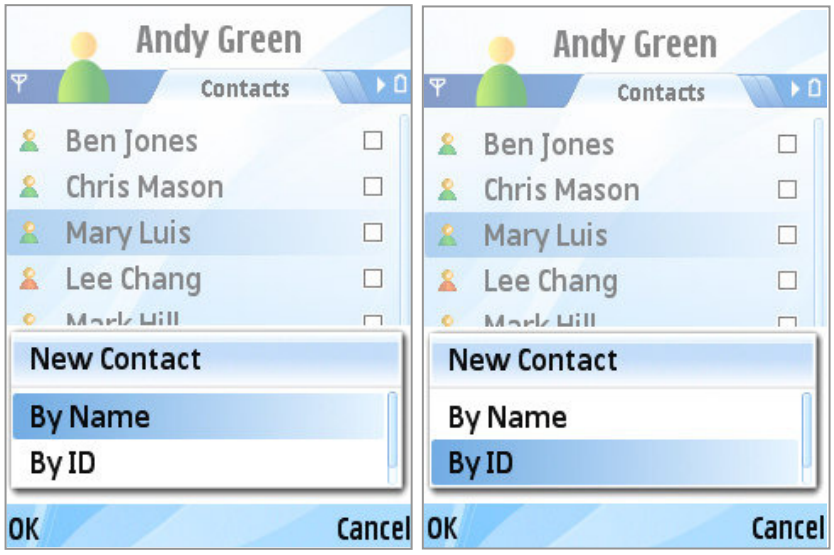


Figure 13,14 Adding Contacts to Contact List

3. Enter the contact Phone/Name and press the **OK** button.

   If the phone number/Name is an IPRS subscriber, you are prompted to confirm that you want to add the contact.

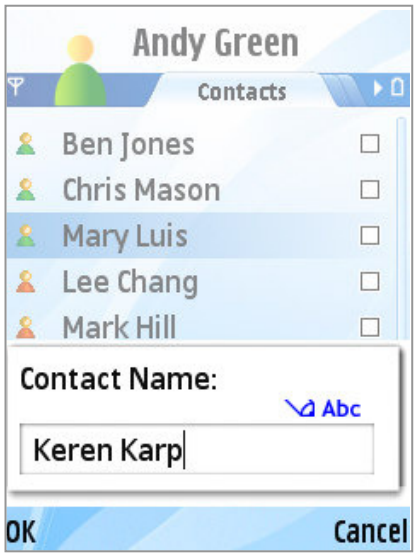


Figure 15: Contact Found Screen

Note: If the destination number is not an IPRS subscriber, you will receive an error message advising you that you cannot add this number to your IPRS Contact List. If you entered a partial name, you'll get a list to choose from.

4. Select **Yes** to add the contact. The subscriber's name is added to your contact list.

5.2. Removing Contacts

You can remove personal contacts from your Contact List at any time.

1. Highlight the subscriber to be deleted from your Contacts tab, press the **Menu** button and select 'Contacts'.
2. Select **Remove Contact** and press **OK** button. A confirmation screen is displayed.

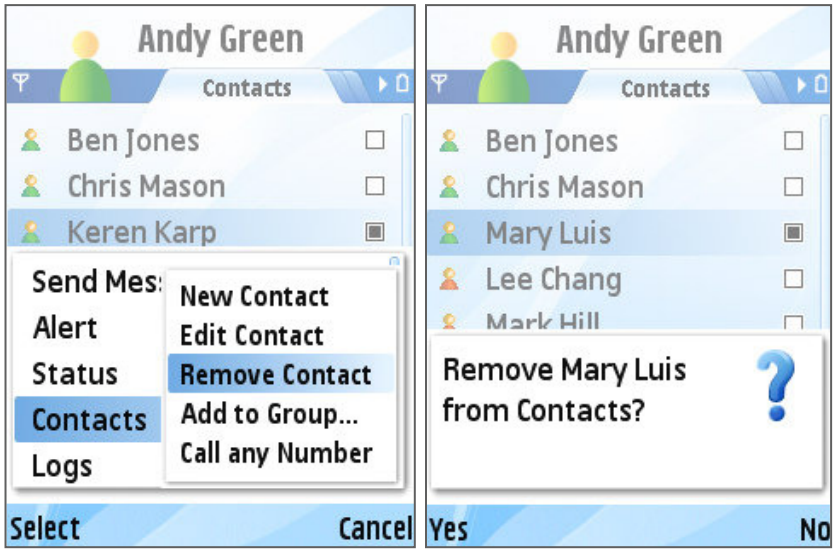


Figure 16,17: Removing a Contact

3. Press **Yes** to remove the contact. The contact is removed from your Contact List.

Note: You cannot delete contacts or groups that have been predefined by the IPRS Administrator.

5.3 Edit contact

You can edit any contact name.

(for example you can change the name Mary Luis to Sister).

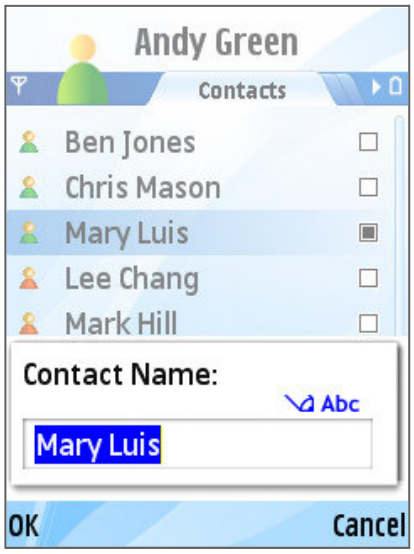


Figure 18: Editing a Contact

5.4 Get System Name

Selecting this option will retrieve the original contact name from the system address book.

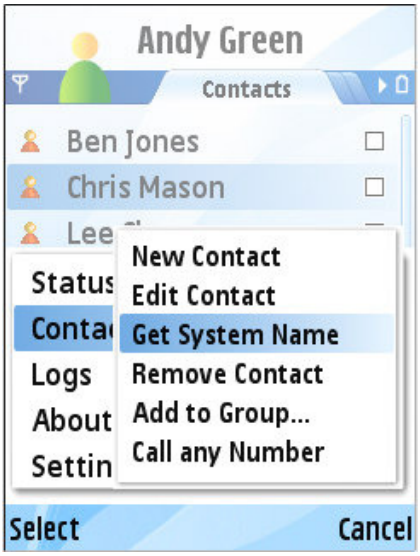


Figure 19: Get System name

6. Working with PTT

You can initiate a PTT session by choosing a single contact, multiple contacts, or a group.

Presence icons indicate whether contacts are currently online or unavailable (in Offline or Do Not Disturb mode). You can choose one, many, or all of the contacts on the list.

6.1. Initiating a Private PTT Session

You can initiate a private session with any other IPRS subscriber by selecting the subscriber from your Contact List.

1. In the Contacts tab screen, select the contact with whom you would like to have a session.
2. Press and hold down the **PTT** button to speak. The screen now indicates that you are talking. The name of the contact to which you are speaking is showed at the session header at the bottom
3. You can also start talking by long key press of any Numeric Digit 2-9 This can be set from Settings. This will also work while application is Into background or keypad locked.

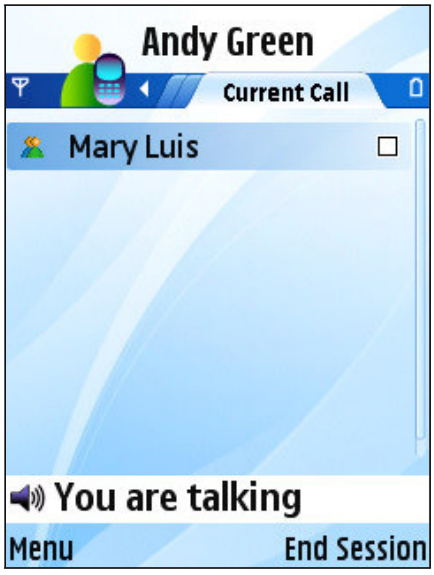


Figure 20: Talking to a Contact

6.2. Initiating an Ad-Hoc PTT Session

You can initiate an Ad-Hoc session with any other IPRS subscriber by selecting the subscriber from your Contact List.

1. In the Contact List screen, select the contacts with whom you would like to have a session.

2. Press and hold down the PTT button to speak. The screen now indicates that you are talking. The name 'Group call' appears in the session header on the bottom.

6.3. PTT Communication Group Tab

A major innovative element of the PTT experience is the group session capability.

On the Group Tab, select the group with whom you would like to have a session then press and hold the **PTT** button to start session (CHANGE figure 12). The Session name is indicated on the session header at the bottom.

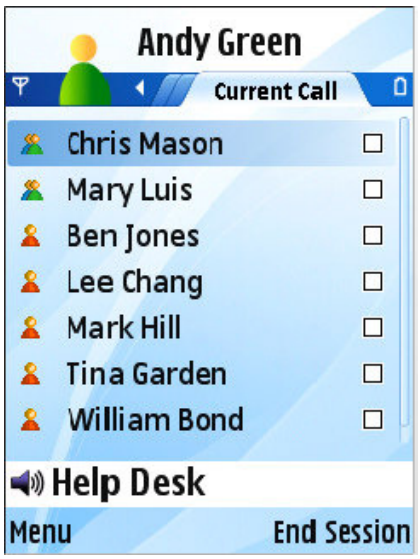


Figure 21: Talking to a Group of Contacts

There are 3 possible types of Groups on the Groups tab:

1. **Chat-room:** A pre-defined group that cannot be changed or removed by the user. Can be a default group. You may join a chat room session, with the predefined chat groups that appear in your Contact List. When joining a chat room you will be able to see and speak only with other participants that are already in the chat room, or have joined while you are there. You do not have the ability to summon someone to a chat room. You may also find the chat room empty of other users. In this case your PTT button will be disabled.

   Note: If someone was talking in the chat room session when you joined you'll be placed into the session but without the right of speech.

2. **Conference:** A pre-defined group that cannot be changed or removed by the user. You may initiate a conference session, with the predefined conference groups that appear in your Contact List. Initiating a conference session means inviting group's members to a conference.

   Note: The users that are actually participating in the session are displayed with In-Session icon (the icon changes from one peon to two peons).

3. **Personal group:** Created by the user and unlike the pre-defined groups, can be removed and edited. To create a personal group, go to the contacts tab and select a few contacts then press **menu > contacts > Add to Group**. A pop-up will show up and the user can decide to create a new group or to add them to an existing personal group. **To remove a Personal group** select the group on the Groups tab, press 'Menu', select 'Contacts' and then select Remove group. When asked, press **yes. To remove members from Personal group** select the group and press the 'right' navigational arrow. Select the member you want to remove, press 'menu', select Contacts and then select 'Remove From Group'. When asked, press **yes.**

6.4. Sending Alert Massage

You can send an Alert Message to any other IPRS subscriber by selecting the subscriber from your Contact List (add figure).

1. In the Contact List screen, select the contact to whom you would like to send an Alert Massage.
2. From the IPRS Menu, Scroll to 'Alert' and press select button (add figure).

6.5. Responding to PTT Communications

When your IPRS presence is set to Online, you hear an incoming audio almost instantaneously over the speaker in a "bursting" incoming session. Your handset does not ring and you do not have to accept a session to enable a connection.

In private session, the name of the person who initiated the PTT session is indicated in the session header at the bottom. (Figure 4)

In group session the name of the session will appear in the session header.

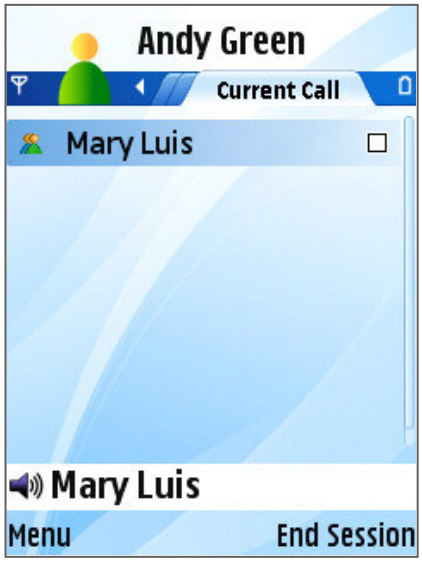


Figure 22: Listening to a Contact

Note: When your IPRS presence is set to Offline, you are unable to receive incoming PTT communications.

1. Wait until the other person finishes talking.
2. Press and hold the PTT button while talking into the handset.
3. Release the **PTT** button when you finish talking.

Note: Your **PTT** button is disabled when another user in the session is pressing his/her **PTT** button.

6.6. Using Push to Text messaging (IM)

In addition to PTT you can send and receive instant text messages to members of your Contact List.

To send an instant message, bring the cursor line to a particular person. Press Menu > Send Message (figure 14) then type the desired text and press Send (figure 15).

To end the instant messaging session press Options > End Conversation (add figure)

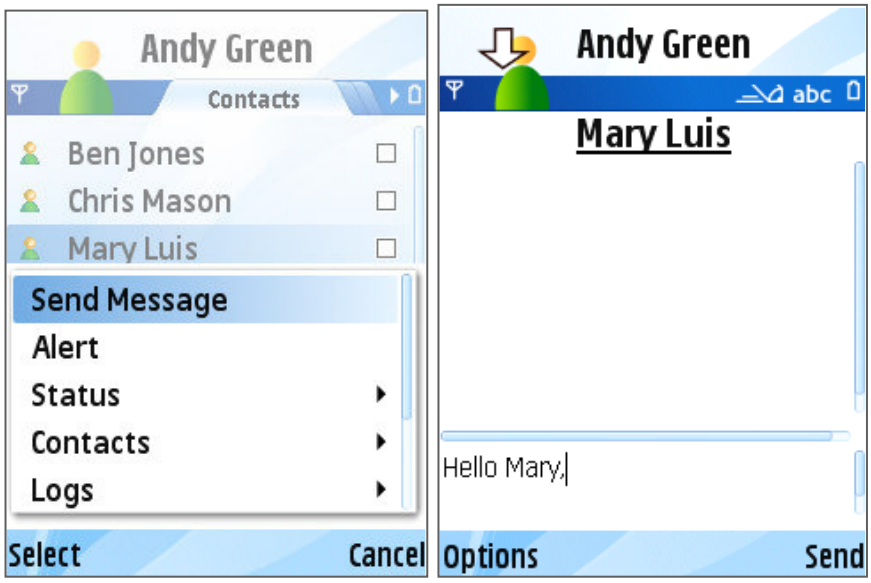


Figure 23, 24: Send IM

Note: *If needed, more information about Installation and configuration can be found on the relevant device's Configuration manual.*

6.7. Call Phonebook Contacts

This option is provided to initiate PTT call to phonebook contact. PTT call can be established only when there are Push-To-Talk details added for that contact.

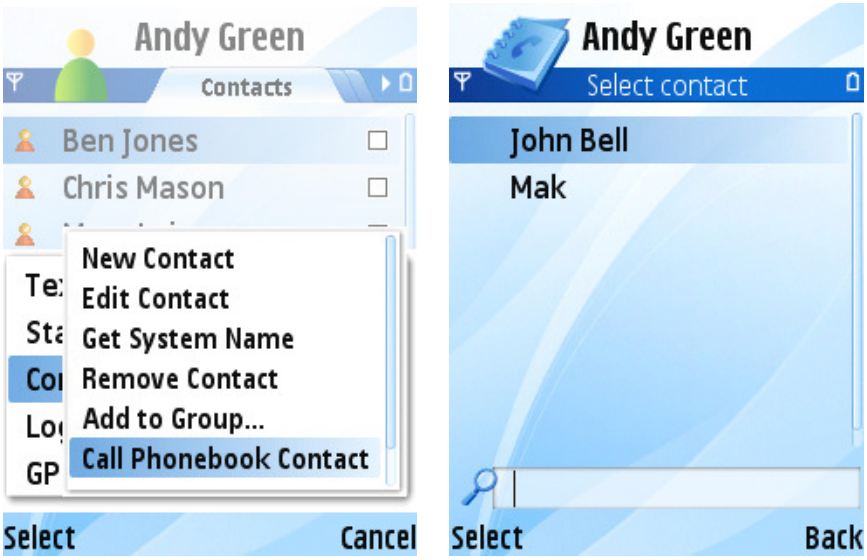


Figure 25, 26 Call Phonebook Contacts.

6.8. Fast Dial (Call Any Number)

This option is provided to initiate PTT call to any contact by entering just contact Id.

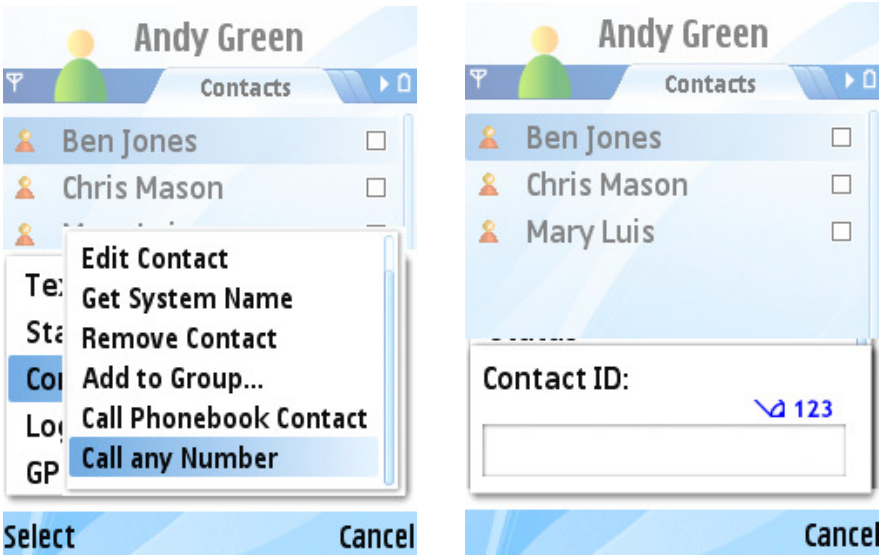


Figure 27, 28 Fast Dial (Call Any Number).

7. GPS Status

This screen displays GPS location related details and Network related information.

Status: Status of GPS.
Age: Time duration since Last Location Retrieval in seconds.
Latitude: Latitude of client's current location.
Longitude: Longitude of client 's current location.
Altitude: Altitude of client's current location.
MCC: Mobile Country Code.
MNC: Mobile Network Code.
LAC: Location Area Code.
Cell-Id: Cell Id.

LHS is "OK" button which will help to go back to previous screen.
RHS is "Refresh" button will update current screen with latest info.
GPS position related details will be forwarded to server at regular interval with updated values.

Incase of Non-GPS devices this screen will show status as Inactive and Network related details only, GPS location related information will not be displayed.

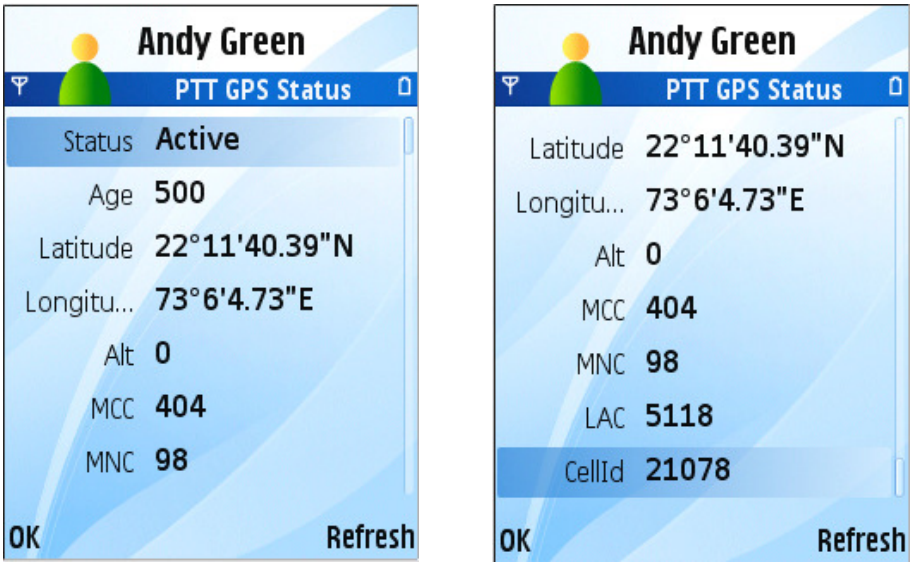


Figure 29, 30: GPS Status.

8. SOS

This screen will send SOS and shows following status of SOS Request as mentioned below.

SOS Forwarded.
SOS Received by Peer.
SOS Approved.

LHS is "OK" button which will bring to go back to previous screen.
RHS is blank with no option.

After receiving SOS request from client, dispatcher can call and talk with client in that Case client will be in auto talk mode so client can talk continuously.

SOS Request can be sent by long key press of any Numeric Digit 2-9 which can be set from Settings. This will also work while application is into background or keypad locked.

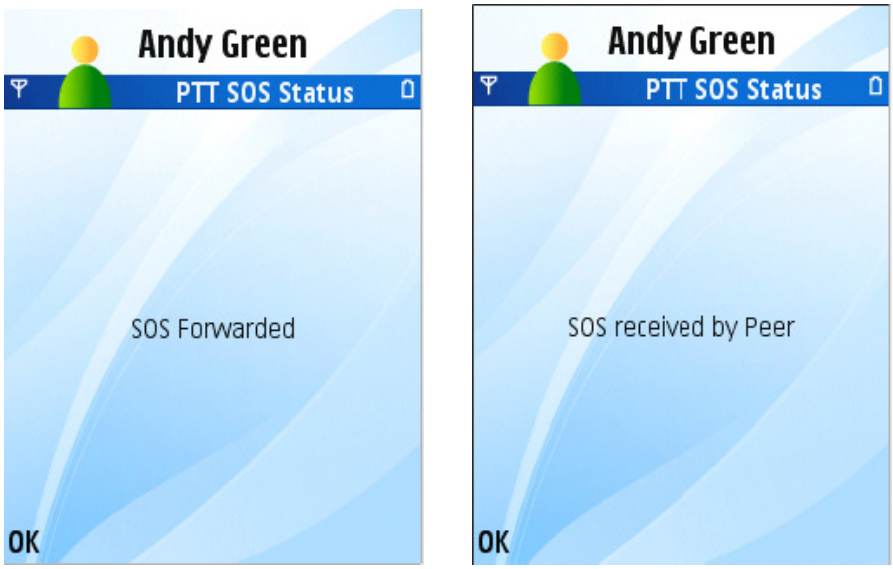


Figure 31,32: SOS Status

9. Settings

This screen will show all configurations and settings, which can be changed according to requirement and application environment.

Setting parameters are mentioned below.

Login Mode: Login Mode Can be changed among provided options.
Initial User State: User's Presence Status can be changed.
Run as System App: Allows Application to Run as System Application.
Volume Key for PTT: Volume Keys like Up, Down can be assign as PTT key.
Assign PTT Key: Any Numeric Digit (2-9) can be assigned as PTT shortcut key to Talk On PTT call
Assign SOS Key: Any Numeric Digit (2-9) can be assigned as SOS shortcut key to Send SOS request.
Sound on Incoming Audio: During PTT call user can get notification of incoming audio.
PTT Sounds Volume: PTT sounds volume can be controlled
Default Access Point: Default access point can be set to avoid prompting for Selection of access point to connect
V-coder: Recording Audio codec can be set AMR15, 74, 122.
Enable Vigilite PTT: Enable/Disable communication with Vigilite.
Enable Bluetooth Button: Enable/Disable communication with BT PTT devices.
Show Privacy Statement: Enable/Disables Privacy Statement
Show Billing Dialog: Enable/Disables Billing Dialog.

Some of configuration parameter will not visible initially those will visible after pressing secret key code "**88779**".Those hidden configuration parameter are mentioned below.

Server Address: URL or IP address of connecting server.
Recording Length: Audio recording length can be set between 120-400 msec.
Debug Log Size: Debug log size can be changed.
Server Port: Connecting server port can be changed.
Client Control Port: Control Port can be changed.
Client Audio Port: Audio Port can be changed.
NAT Interval: NAT Interval can be set.
Allow Position Updates: Position updates can be Enabled/Disabled.

These figures show all default settings.

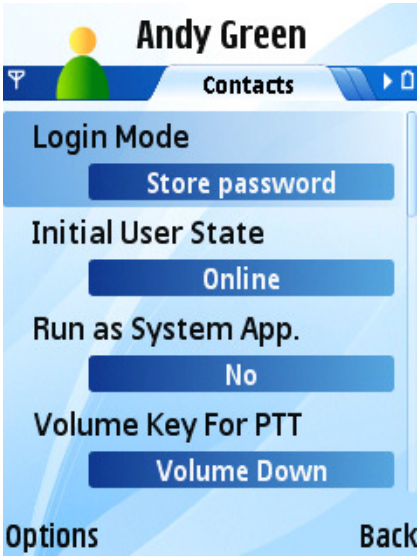
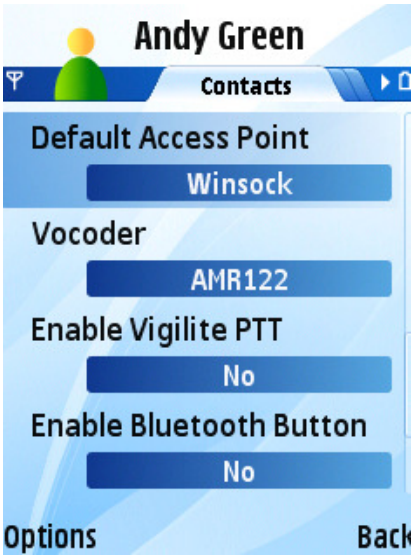


Figure 33, 34: Default Settings



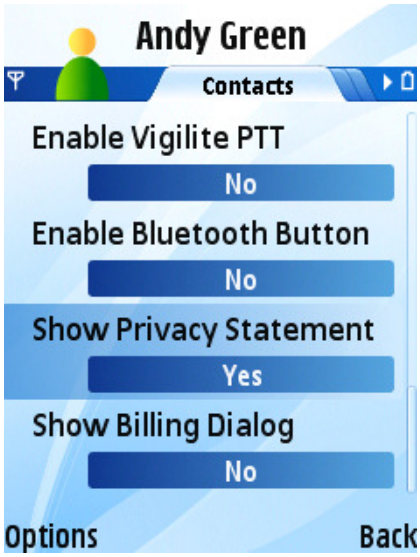
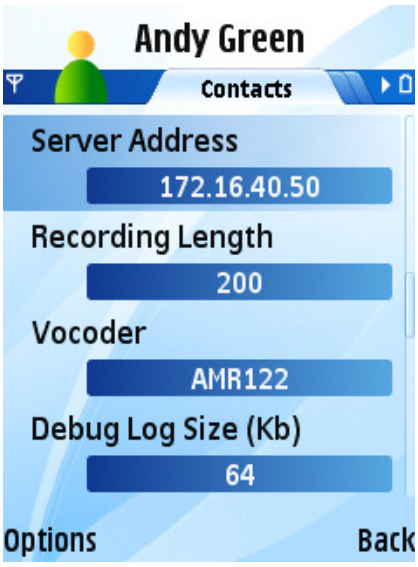


Figure 35, 36: Default Settings

These figures show Hidden settings which are visible after pressing secret key.



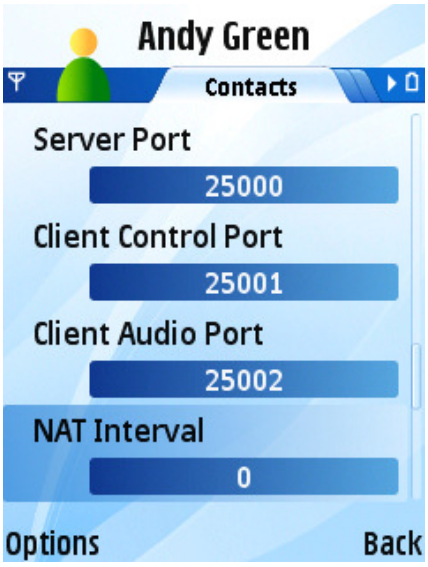


Figure 37, 38: Hidden Settings

Long Key Press for PTT is provided to start PTT talk on faster basis. Once any Numeric digit assigned as PTT Long key press then Client can start PTT talk by just pressing long key press on that particular number that will bring application on foreground (if application into background) and start talk with selected contact. This feature will also work when Key pad locked.

Similarly Long Key Press for SOS is provided to Send SOS with just single key press. Assigned numeric digit's long key press will directly bring application in foreground and send SOS to server. This will work same as Long Key Press for PTT, It will work incase application into background and key pad is locked.

Long key Press for PTT and Long key press for SOS can't be same, that mean same numeric digit can not be assigned for both operation.

Vigilite is Bluetooth based PTT device with speaker, microphone and PTT button, so Enable Vigilite PTT option Enable/Disable communication with vigitile device through Bluetooth as normal PTT device.

Enable Bluetooth Button Enable/Disable communication with other Bluetooth based PTT devices like SHP612, BCP910, LinTech, Comf_Comp, etc. so application can talk with them as normal PTT devices same as vigilite.

10. Set as PTT default

This menu option will set selected contact or group as default PTT. After setting default PTT contact or group it's easy to call that directly by just pressing PTT button.

Note: This feature will work only when no call is active when pressing the PTT button.

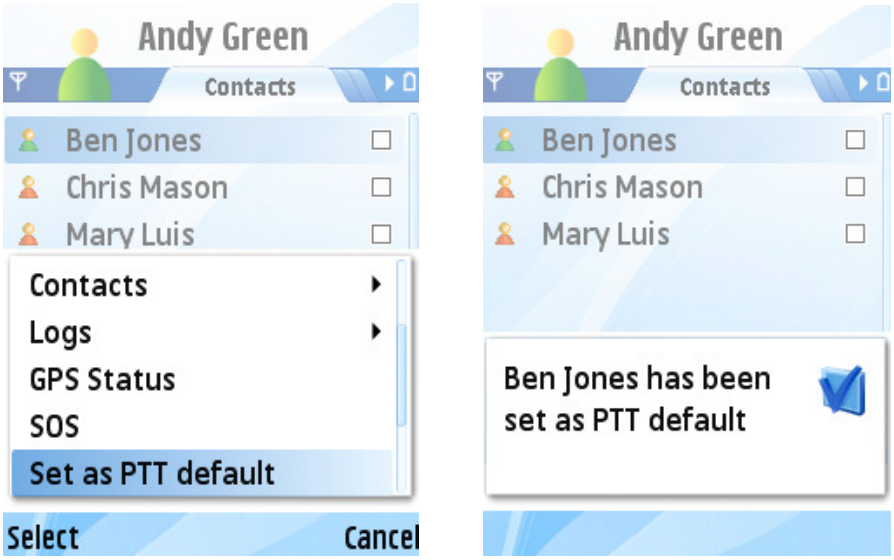


Figure 39, 40: Set as PTT default

If application is into Current call Tab view and user wants to call default contact then there is no need to go back in Contact or Group Tab view. Call can be initiated from same view by just pressing PTT button.

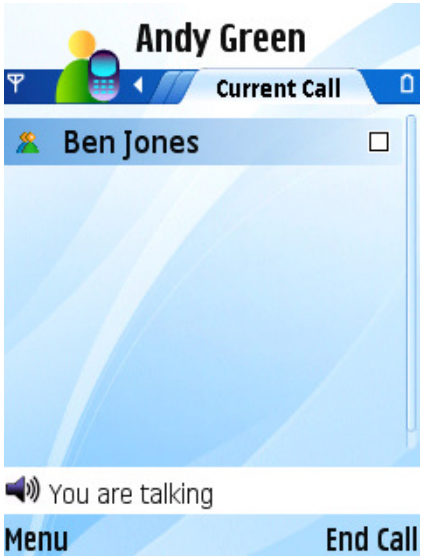


Figure 41: Set as PTT default